

In the Claims

1. (currently amended) ~~A method of using a network management system for managing a communication network partitioned into a plurality of subnetworks, each having one or more comprising a plurality of ports, for traffic services passing in or out of that between the subnetworks, the management system having a method comprising the step of using a model of the network having a representationa given one of the subnetworks, and of its traffic services, in the subnetworks modelled according to a predetermined multiplex layer protocol, and a network management system, the communication network being partitioned into a plurality of subnetworks, the method comprising generating for the model representation, in respect of a given said subnetworks, the model comprising an off-network pointer at a given one of the layers, for representing one of the ports, and representing a capability of the port for carrying, according to a predeterminedthe -multiplex layer protocol, givenmany of the traffic services exiting the given subnetwork at the given one of said ports, whereby to and the step of model establish a traffic carrying capability externally to the given subnetwork by using the predetermined multiplex layer protocol to deduce and model higher layers of off network functions off the given subnetwork, for the given traffic services, based on the off-network pointer.~~
2. (original) A method according to Claim 1, wherein the pointer is first generated in one of said layers and functionality at other layers is generated in response thereto.
3. (original) A method according to Claim 1, wherein the generation of said off-network pointer is performed by software.
4. (original) A method according to Claim 1, further comprising identifying incomplete trails within a said partition.
5. (currently amended) ~~The method of claim 1 A method of managing a communication network comprising a plurality of ports, modelled according to~~

~~a layer protocol, and a network management system, the communication network being partitioned into a plurality of subnetworks, the method comprising determining those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said connection termination points in different subnetworks.~~

6. (original) A method according to Claim 5, wherein the valid termination points for trails, links and link connections are first generated in one of said layers and functionality at other layers is generated in response thereto.

7. (original) A method according to Claim 5, wherein the generation of said valid termination points is performed by software.

8. (original) A method according to Claim 5, further comprising identifying incomplete trails within a said partition.

9. (cancelled)

10. (cancelled)

11. (currently amended) A network management system for a subnetwork of a communication network partitioned into a plurality of subnetworks, each having one or more ports, for traffic passing between them or out of that subnetworks, the management system having a model of the given subnetwork having a representation of the subnetworks, and traffic services in the given subnetworks—, modelled according to a predetermined multiplex layer protocol, and being arranged to generate for the model representation of a given subnetwork the model comprising an off-network pointer at a given one of the layers, for representing one of the ports, and representing a capability of the port for carrying according to the a predetermined multiplex layer protocol, given many of the traffic services exiting the subnetwork at the one of said given ports, and whereby to the system being arranged to model a traffic carrying capability externally to the given subnetwork by using the

predetermined multiplex layer protocol to deduce and model higher layers of off-network functions off the subnetwork, for the given traffic services, based on the off-network pointer.

~~comprising a plurality of ports, modelled according to a layer protocol, the communication network being partitioned into a plurality of subnetworks, the network management system comprising means to generate an off network pointer exiting the subnetwork at one of said ports, whereby to establish a traffic carrying capability externally to the subnetwork.~~

12. (currently amended) The A-network management system of claim 11 and~~for a communication network comprising a plurality of ports, modelled according to a layer protocol, the communication network being partitioned into a plurality of subnetworks, the network management system~~ comprising means to determine those ports that represent valid termination points for trails, links and link connections in the subnetworks, whereby to generate trails interconnecting said termination points in different subnetworks.

13. (original) A carrier carrying software adapted to perform the method as claimed in Claim 1.

14. (original) A carrier carrying software adapted to perform the method as claimed in Claim 5.

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)